### **EMERGENCY RESPONSE REPORT**

### **FOR**

## PASADENA REFINING SYSTEM, INC. FIRE (aka PRSI FIRE) 111 RED BLUFF ROAD PASADENA, HARRIS COUNTY, TEXAS

### Prepared for

### U.S. Environmental Protection Agency Region 6

Will LaBombard, Project Officer 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202

Contract No. EP-W-06-042
Technical Direction Document No. 1/WESTON-042-16-017
WESTON Work Order No. 20406.012.001.0993.01
NRC No. 1142043
CERCLIS No. N/A
FPN N/A
EPA OSC: Jhana Enders
EPA Team PTL: Patrick Bond

Prepared by

Weston Solutions, Inc.

Cecilia Shappee, P.E., Program Manager 5599 San Felipe, Suite 700 Houston, Texas 77056 (713) 985-6600

#### PROJECT SUMMARY

This final report describes the U.S. Environmental Protection Agency (EPA) response actions for the Pasadena Refining System, Inc. (PRSI) Fire response. The site is a petroleum refining facility located at 111 Red Bluff Road in Pasadena, Harris County, Texas. The detailed report follows this page, and all attachments are provided as separate portable document format (PDF) files.

On 05 March 2016 at approximately 1358 hours, the National Response Center (NRC) received an initial report (NRC Report No. 1142043) of an explosion resulting in the closure of the Houston Ship Channel. Additional information reported to EPA indicated the incident occurred in a hydrogen desulfurization system (HDS) with potential release of sulfur dioxide. The NRC notified the EPA Region 6 Prevention and Response Branch (PRB), and the EPA-PRB on-duty phone officer mobilized an On-Scene Coordinator (OSC) and the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor. The EPA Team was mobilized under the National Contingency Plan, which gives EPA the authority to respond to a release (or threat of) of hazardous substances, pollutants, or contaminants. The EPA Team was tasked to respond to the incident to assess site conditions, provide written and photographic documentation of the activities, conduct perimeter air monitoring for potential chemicals of concern, and provide technical assistance as needed. A subsequent NRC report (NRC Report No. 1142059) was received at 1809 hours indicating a leak in a line, causing the line to catch fire and discharge diesel that burned to the atmosphere. During air monitoring, no detections above Acute Exposure Guideline Levels (AEGLs) were recorded at the 14 monitoring locations (Attachments C and D) for oxygen (O2), lower explosive limit (LEL), carbon monoxide (CO), hydrogen sulfide (H2S), volatile organic compounds (VOCs), and sulfur dioxide (SO2). At approximately 1903 hours on 05 March 2016, the fire was extinguished, and after concluding air monitoring activities, the EPA Team demobilized from the site at 2200 hours.

This report was prepared to describe the technical scope of work that was completed as part of Technical Direction Document (TDD) No. 1/WESTON-042-16-017. EPA OSC Jhana Enders provided direction for the response, and the START-3 Project Team Leader (PTL) was Patrick Bond.

	The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.
X	The EPA Task Monitor has provided final approval of this report. Therefore, Weston Solutions, Inc. has submitted this report with the Task Monitor's approval.

## TABLE OF CONTENTS

# EMERGENCY RESPONSE REPORT PROJECT SUMMARY TABLE OF CONTENTS

- 1. INTRODUCTION
- 2. BACKGROUND
- 3. ACTIONS TAKEN
- 4. LIST OF ATTACHMENTS

#### 1. INTRODUCTION

On 05 March 2016 at approximately 1358 hours, the National Response Center (NRC) received an initial report (NRC Report No. 1142043) of an explosion resulting in the closure of the Houston Ship Channel. Additional information reported to EPA indicated the incident occurred in a hydrogen desulfurization system (HDS) with potential release of sulfur dioxide. The NRC notified the EPA Region 6 Prevention and Response Branch (PRB), and the EPA-PRB on-duty phone officer mobilized an On-Scene Coordinator (OSC) and the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor. The EPA Team was mobilized under the National Contingency Plan, which gives EPA the authority to respond to a release (or threat of) of hazardous substances, pollutants, or contaminants. The EPA Team was tasked to respond to the incident to assess site conditions, provide written and photographic documentation of the activities, conduct perimeter air monitoring for potential chemicals of concern, and provide technical assistance as needed. A subsequent NRC report (NRC Report No. 1142059) was received at 1809 hours indicating a leak in a line, causing the line to catch fire and discharge diesel that burned to the atmosphere. During air monitoring, no detections above Acute Exposure Guideline Levels (AEGLs) were recorded at the 14 monitoring locations (Attachments C and D) for oxygen (O2), lower explosive limit (LEL), carbon monoxide (CO), hydrogen sulfide (H2S), volatile organic compounds (VOCs), and sulfur dioxide (SO2).

Geographic coordinates of the PRSI Explosion were obtained using a Global Positioning System (GPS). The incident site is located at 111 Red Bluff Road (Latitude 29.719000° North and Longitude 95.210531°West). A Site Location Map, a Site Area Map, and an Air Monitoring Locations Map are included as Attachments A, B, and C, respectively.

#### 2. BACKGROUND

On 05 March 2016 at 1025 hours, a PRSI employee was reportedly switching from one hydrogen source to another in the HDS unit when he reported an ignition and percussion wave damaging nearby pipelines containing diesel fuel. The hydrogen and diesel ignited, resulting in an explosion and fire with the release of SO2 and diesel that burned to the atmosphere. The employee was transported to the hospital with first and second degree burns and was released that evening following medical treatment. As a result of the release, PRSI environmental staff

began mobile air monitoring operations within the plant and throughout the surrounding communities.

At 1050 hours, Channel Industries Mutual Aid (CIMA) arrived on-site with multiple firefighting units. Authorities shut down the nearby Washburn Tunnel and Red Bluff Road to accommodate the staging of additional fire suppression equipment on-scene. The United States Coast Guard (USCG) briefly closed the Houston Ship Channel due to concerns of the drifting smoke plume. At 1058 hours, an "e-notify" incident notification was sent out with time, date, type, weather, etc. to agencies, nearby industries, and the community. In response to the fire, the National Response Center (NRC) and Texas Commission on Environmental Quality (TCEQ) were informed of the incident (NRC Report No. 1142043). PRSI relayed to the EPA Team during the response that their initial estimates were that the fire resulted in an SO2 Reportable Quantity of 800 pounds. The final TCEQ STEERs report submitted by PRSI (Attachment H) confirmed that a calculated amount of 293.2 pounds of SO2 were released from the facility during the event.

A Unified Command was established to assist in providing information, resources, and response decisions. Unified Command included PRSI management and operations staff and personnel from City of Pasadena, City of Houston Fire Department, Harris County Emergency Management/Pollution Control/Arson Investigation, Houston Emergency Management, Harris County Hazmat, USCG, TCEQ, and CIMA. Harris County Pollution Control joined PRSI environmental staff for air monitoring operations that were conducted on-site and downwind in adjacent areas around the facility. No detections were recorded during air monitoring efforts and the Unified Command decided that no community evacuations or shelter-in-place orders were required.

Authorities reopened the Washburn Tunnel at 1203 hours 05 March 2016 for vehicles and, at 1245 hours, the Houston Ship Channel was reopened for marine traffic. By 1255 hours the fire was contained within the immediate vicinity of the HDS unit, and City of Pasadena personnel and CIMA response support resources had demobilized from the scene by 1345 hours. The fire was completely extinguished at 1903 hours 05 March 2016 and, upon agreement among members of Unified Command, the "all clear" alert was given at 1921 hours.

#### 3. ACTIONS TAKEN

The EPA Team arrived on-scene 05 March 2016 at 1546 hours and began photograph documentation of the incident with direction from Jhana Enders, the EPA OSC. Upon arrival at the scene, an incident briefing was received from the Unified Commander Mark Berlinger, PRSI Environmental Health Safety Director. A meeting was held with members of the PRSI on-site Unified Command staff to obtain an accurate timeline of events and information regarding the current situation.

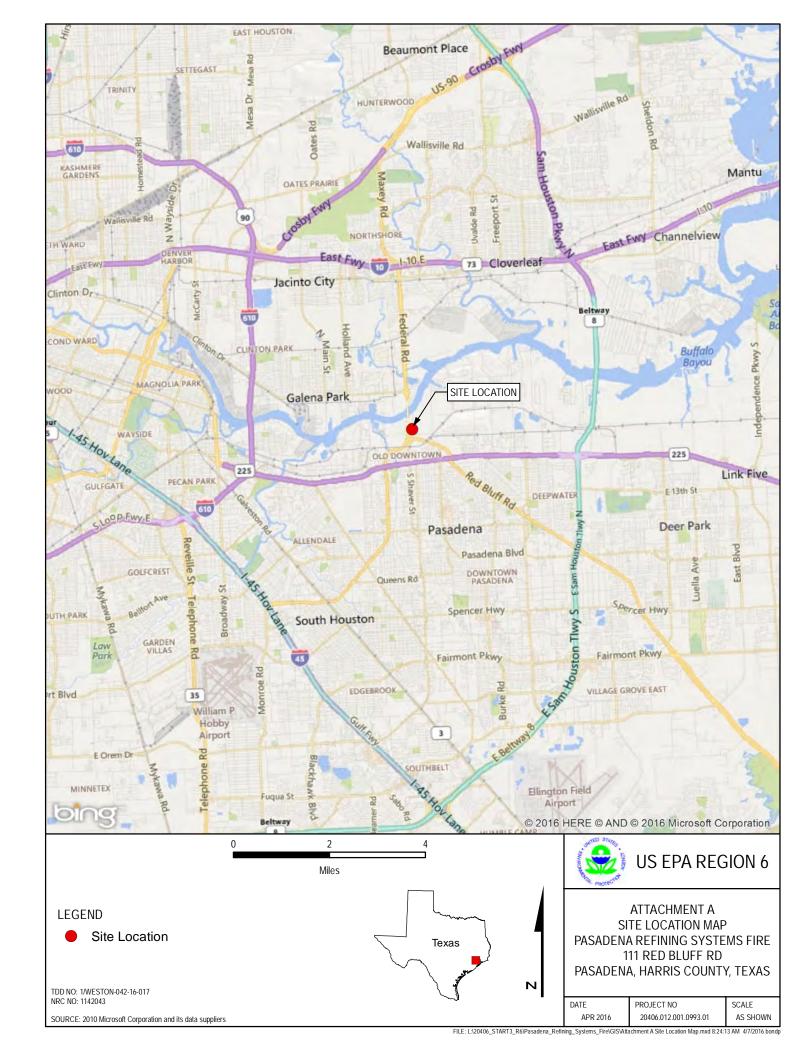
Following the initial incident briefing, the EPA Team began conducting air monitoring at 1650 hours. Measurements were collected at 14 locations in the surrounding industrial and residential areas. Readings for O2, LEL, CO, H2S, VOCs, and SO2 were recorded with no detections above AEGLs. A map of air monitoring locations and a table of recorded monitoring data are included as Attachment C and Attachment D, respectively.

The EPA Team received a final on-site briefing at 2000 hours to review the timeline of events and expected actions moving forward. EPA will continue to monitor the release of diesel and follow up with TCEQ. PRSI representatives will remain in contact with TCEQ, who will continue oversight during the damage assessment and restoration. Stand-down of Unified Command occurred at 2143 hours, and the EPA Team demobilized at 2200 hours.

#### 4. LIST OF ATTACHMENTS

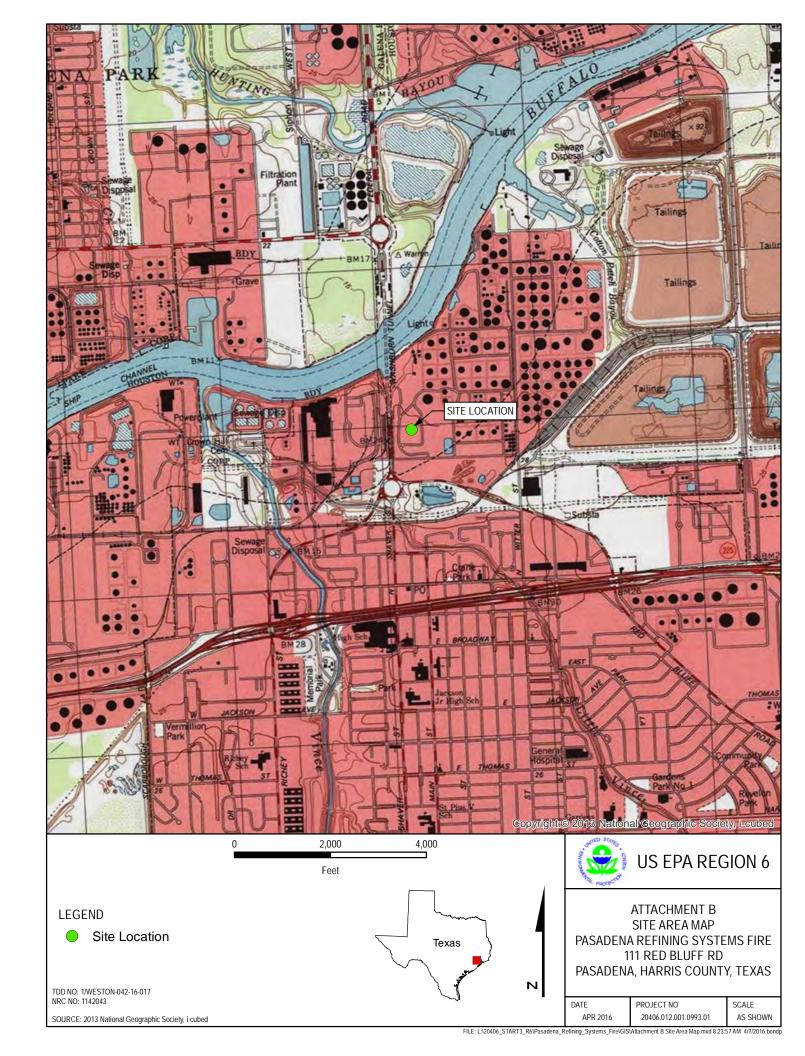
- A. Site Location Map
- B. Site Area Map
- C. Air Monitoring Locations Map
- D. Air Monitoring Results
- E. Digital Photographs
- F. Site Logbook
- G. NRC Report No. 1142043
- H. Final TCEQ STEERs Report
- I. Pollution Report (POLREP)
- J. TDD No. 1/WESTON-042-16-017

# ATTACHMENT A SITE LOCATION MAP

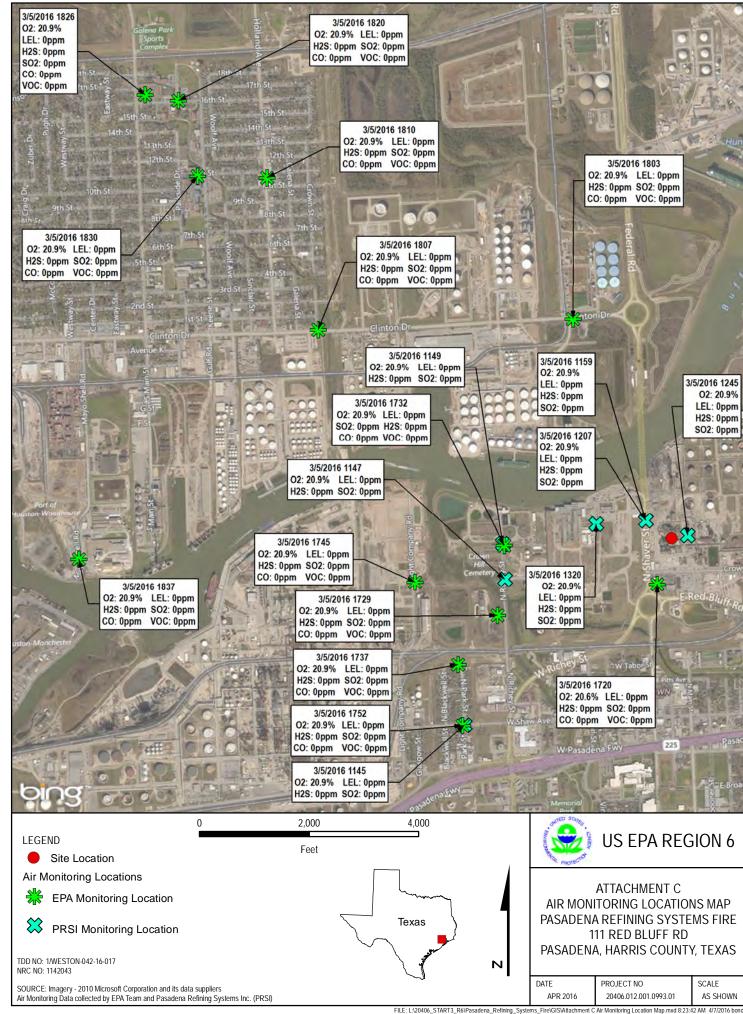


ATTACHMENT B

SITE AREA MAP



# ATTACHMENT C AIR MONITORING LOCATIONS MAP



# ATTACHMENT D AIR MONITORING RESULTS

# Attachment D Air Monitoring Results Pasadena Refining Systems Fire (aka PRSI Fire) Pasadena, Harris County, Texas

Date	Time	Data Source	Lat	Long	H2S (ppm) Low Alarm - 10 High Alarm - 20	SO2 (ppm) Low Alarm - 2 High Alarm - 10	CO (ppm) Low Alarm - 5000 High Alarm - 5000	VOC (ppm) Low Alarm - 50 High Alarm - 100	LEL (%) Low Alarm - 10 High Alarm - 20	OXY (%) Low Alarm - 19.5 High Alarm - 23.5
3/5/2016	1145	PRSI	29.712502	-95.2226	0	0	NA	NA	0	20.9
3/5/2016	1147	PRSI	29.71975	-95.220005	0	0	NA	NA	0	20.9
3/5/2016	1149	PRSI	29.721515	-95.220082	0	0	NA	NA	0	20.9
3/5/2016	1159	PRSI	29.722464	-95.211823	0	0	NA	NA	0	20.9
3/5/2016	1207	PRSI	29.722464	-95.211823	0	0	NA	NA	0	20.9
3/5/2016	1245	PRSI	29.721643	-95.209432	0	0	NA	NA	0	20.9
3/5/2016	1320	PRSI	29.722363	-95.214668	0	0	NA	NA	0	20.9
3/5/2016	1720	EPA Team	29.71925	-95.21128	0	0	0	0	0	20.9
3/5/2016	1729	EPA Team	29.71793	-95.2205	0	0	0	0	0	20.9
3/5/2016	1732	EPA Team	29.72143	-95.21999	0	0	0	0	0	20.9
3/5/2016	1737	EPA Team	29.71553	-95.22285	0	0	0	0	0	20.9
3/5/2016	1745	EPA Team	29.71975	-95.22517	0	0	0	0	0	20.9
3/5/2016	1752	EPA Team	29.71248	-95.2227	0	0	0	0	0	20.9
3/5/2016	1803	EPA Team	29.73266	-95.21561	0	0	0	0	0	20.9
3/5/2016	1807	EPA Team	29.73255	-95.23026	0	0	0	0	0	20.9
3/5/2016	1810	EPA Team	29.74023	-95.23292	0	0	0	0	0	20.9
3/5/2016	1820	EPA Team	29.74423	-95.23786	0	0	0	0	0	20.9
3/5/2016	1826	EPA Team	29.74457	-95.23976	0	0	0	0	0	20.9
3/5/2016	1830	EPA Team	29.74042	-95.23691	0	0	0	0	0	20.9
3/5/2016	1837	EPA Team	29.72145	-95.24442	0	0	0	0	0	20.9



## **About Acute Exposure Guideline Levels (AEGLs)**

### On this page:

- Overview
- Assigned level 1, 2, or 3 according to severity of effects
- AEGLs developed in accord with formal guidance
- Important user information

## **Overview**

Acute Exposure Level Guidelines (AEGLs) are used by emergency planners and responders worldwide as guidance in dealing with rare, usually accidental, releases of chemicals into the air. AEGLS are expressed as specific concentrations of airborne chemicals at which health effects may occur. They are designed to protect the elderly and children, and other individuals who may be susceptible.

# **AEGLs assigned 1, 2 or 3 according to severity of effects**

AEGLs are calculated for five relatively short exposure periods – 10 minutes, 30 minutes, 1 hour, 4 hours, and 8 hours – as differentiated from air standards based on longer or repeated exposures. AEGL "levels" are dictated by the severity of the toxic effects caused by the exposure, with Level 1 being the least and Level 3 being the most severe.

All levels are expressed as parts per million or milligrams per cubic meter (ppm or mg/m<sup>3</sup>) of a substance above which it is predicted that the general population could experience, including susceptible individuals:

#### Level 1

• Notable discomfort, irritation, or certain asymptomatic non-sensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.

#### Level 2

• Irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.

#### Level 3

• Life-threatening health effects or death.

### **Below AEGL Level 1**

Airborne concentrations below the AEGL-1 represent exposure levels that could produce mild and progressively increasing but transient and non-disabling odor, taste, and sensory irritation or certain asymptomatic, non-sensory effects. With increasing airborne concentrations above each AEGL, there is a progressive increase in the likelihood of occurrence and the severity of effects described for each corresponding AEGL.

AEGL values represent threshold levels for the general public. As mentioned, that includes susceptible subpopulations, such as infants, children, the elderly, persons with asthma, and those with other illnesses. However, it is recognized that individuals, subject to unique or idiosyncratic responses, could experience the effects described at concentrations below the corresponding AEGL.

# **AEGLs** are developed under formal guidance

In 2001, the National Academies published procedural guidance or "Standing Operating Procedures" to make development of AEGLs systematic, consistent, documented and transparent to the public.

Read the Standing Operating Procedures (SOP) of the National Advisory Committee on Acute Exposure Guideline Levels for Hazardous Substances

## Important information for users of AEGLs

Users of the AEGLs should first determine if there are legally enforceable standards that apply to the situation. Other organizations may also have recommended levels of exposure that more appropriately apply to the scenarios under evaluation.

There may be situations in which it is desirable to use AEGLs values for other exposure scenarios. To determine if an AEGL applies to a particular situation, consult the chemical-specific AEGL technical support document that contains a comprehensive review of all identified acute toxicology data on the subject chemical and the basis for the development of the AEGL values.

Find chemical-specific AEGL technical support documents.

Last updated on October 5, 2015



# **Hydrogen sulfide Results - AEGL Program**

Hydroge	en sulfi	de ///	83-06-4	4 (J	Final)
	10 mi	n 30 mi	n 60 mi	n4 h	r8 hr
ppm					
<b>AEGL</b>	10.75	0.60	0.51	0.36	50.33
<b>AEGL</b>	<b>2</b> 41	32	27	20	17
<b>AEGL</b>	<b>3</b> 76	59	50	37	31

<sup>\*</sup> Level of Odor Awareness = 0.01 ppm

You will need Adobe Reader to view some of the files on this page. See EPA's About PDF page to learn more.

Hydrogen sulfide AEGL Technical Support Document (PDF) (70 pp, 493 K)

Last updated on October 1, 2015



# **Sulfur Dioxide Results - AEGL Program**

Sulfur Dioxide 7446-09-5 (Final) 10 min 30 min 60 min 4 hr 8 hr ppm **AEGL 1** 0.20 0.20 0.20 0.200.20 **AEGL 2** 0.75 0.75 0.75 0.75 0.75 **AEGL 3** 30 30 19 9.6 30

You will need Adobe Reader to view some of the files on this page. See EPA's About PDF page to learn more.

• Sulfurdioxide AEGL Technical Support Document (PDF) (79 pp, 622 K)

Last updated on October 1, 2015



PRSI Fire PRSI Fire Overview Incident Name: Event Name: Photo Type:

Direction: Photo Name: Date and Time:

Smoke2.jpg Apr 15 2016 10:07AM

Latitude: Longitude:

Photographer: Witness: Unknown Unknown

Caption: Smoke Plume and fire supression activities



PRSI Fire PRSI Fire Overview Incident Name: Event Name: Photo Type:

Direction:

pasadena-explosion-1.jpg Mar 5 2016 12:00AM Photo Name: Date and Time:

Latitude:

Longitude: Photographer: Witness: Unknown Unknown

Caption: Aerial Overview of fire suppression



PRSI Fire Incident Name: PRSI Fire

Event Name: Photo Type: Direction:

IMG\_6304.JPG Mar 5 2016 12:00AM 29.719250 -95.211280 11458 Photo Name: Date and Time:

Latitude: Longitude: Photographer: Witness: TEDD

Caption: Damaged stack (third stack from the left, black top)



Incident Name: PRSI Fire PRSI Fire Event Name:

Photo Type: Direction:

IMG\_6306.JPG Mar 5 2016 12:00AM 29.719250 Photo Name: Date and Time:

Latitude: Longitude: -95.211280 Photographer: Witness: 11458 TEDD

Caption: Damaged stack (center)



PRSI Fire PRSI Fire Incident Name: Event Name:

Photo Type: Direction:

IMG\_6305.JPG Mar 5 2016 12:00AM 29.719250 -95.211280 Photo Name: Date and Time:

Latitude: Longitude: Photographer: Witness: 11458 TEDD

Caption: Damaged stack (to the left of tallest white stack)



Incident Name: PRSI Fire PRSI Fire Event Name:

Photo Type: Direction:

P5050202.JPG Mar 5 2016 12:00AM 29.719750 Photo Name: Date and Time: Latitude: Longitude: -95.225170

Photographer: Witness: 11458 TEDD

Caption: Air monitoring reading at industrial plants NW of site



Incident Name: PRSI Fire Event Name:
Photo Type:
Direction:
Photo Name: PRSI Fire

Date and Time:

P5050204.JPG Mar 5 2016 12:00AM 29.744570 -95.239760 11458 Latitude: Longitude: Photographer: Witness: TEDD

Caption:

Air monitoring reading taken at MacArthur Elementary School, Galena Park



PRSI Fire PRSI Fire Incident Name: Event Name: Photo Type: Direction:

P3050199.JPG Mar 5 2016 12:00AM 29.715530 Photo Name: Date and Time: Latitude: Longitude: Photographer: Witness: -95.222850 11458 TEDD

Caption: Air monitoring readings



PRSI Fire PRSI Fire

P5050203.JPG Mar 5 2016 12:00AM 29.732660 -95.215610 11458 TEDD

Incident Name:
Event Name:
Photo Type:
Direction:
Photo Name:
Date and Time:
Latitude:
Longitude:
Photographer:
Witness:
Caption:

Air monitoring at park

ATTACHMENT F

SITE LOGBOOK



PRSI Fire

Wo# 20406.012.001.0993.01

TDD# 1/Weston-042-16-017

NRC# 1142043

Name Patrick Bond - START 3
Daniel Tighe - START 3
Address Ill Red Bluff Rd
Pasadena, Harris County, TX
Phone
Project PRSI Fire
wo# 20406. 012.001.0993.01
TDD = 1/weston -042-16-017

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

	CONTENTS	
PAGE	REFERENCE	DATE
	5: te!	
	Pasadena Retining System, Inc 111 Red Bluft Rd Pasadena, Tx 77506	
	III Red Bluft Rd	
	Pasadena, Tx 77506	
	,	
	19 19 19 19 19 19 19 19 19 19 19 19 19 1	= y
(2	~ .	
ı		

Response-Pasadena Explosion 3.5.16 1430 START - Tighe arrives at the wavehouse and begins loading equipment. com 15,5 START Bond arrives at cravelouse. on 1530 START Team leaves ingrebouse to 111 Redbluff Road, Pasadona, Tx. - Cus Tsya Asure on side. 1600 START meets with Incident Commander Mark Borlinger and veceives a briefing On convent conditions. Fire is primarily out. A 4-foot flame remains. Initial report is that a flush caused a Slock have that lit the hydrogen and deisel Inthe pipes. Explosion occurred at approx. 10150 1650 START departs Eoc to begin gov monitory to the south of the 1720 MA PRSI parking lot - 24.24 71925, 40 - 45,21128: 0XY-20.6, LEC-09 (0-00/H25-09 VOC 0.0, 502 - 0.0, - dist [729] Reading at 29.71793, -95.22050: 0xx 209 LEL-0,0, (0-0.0, Hzs-0.0, VOC-0.0, SO; 0.0 02 1732 Reading at 29. 72143, -95. 21999 : OXX 209 LEL-0.0, (0-0.0, H, 5-0.0, VX-0.0, So, 0.0 0 1737] Reading at N. Park & W. Belmont Streets:

PRSI Pasadena Explosion 3.5.16 29.71553, -95.22285 : OXY-20.9, LEL-0.0, (0-0.0, H25-0.0, VOC ~0.0, SO, -0.0. 1745 Reading at Light Company Rd + Light Company Service Rd: 29.71975, -95. 22517; 0xy-20.9, LEL-0.0, CO-0.0, H2S-0.0, VOC-0.0, 502-0.0 and 1752 Reading at Parla St + W. Shaw Ave; 24.71248, -95:22270: OXY-20.9, LEL-0.0, (0-0.0, H25-0.0, VOC-0.0, 502-0.0 ag 1754 Changing MultiRAE from SK INC to 23797. Bump test Passed - and 1803 | Reading 4+ 24.73266, -95, 21561; 0xx-20.9, LEL-0.0, CO-0.0, H, SO,0, VOC-6.0, S6, -0.0 - cvs 1807] Reading at Crownst + Clinton Drive; 29.73255, -95.23026: OXY-20.9, LEC-O. O, (0-0.0, H25-0.0, XO(-0.0, SO, O.0 - ex 1810 Reading at Holland Ave + Eleventh St: 29. 74023, -95, 23292! OXY-209, LEL-0.0 (0-0.0, 17,5-0.0, Vol - 0.0, So, 0.0 -1820] Reading at City of Galena Park Swimming POOI: 29.74423, -95.23786: OXY-20.9, LEL-0.0, (0-0.0 H, 5.0.0, VOC-0.0, 50, -0.0 asp 1826 | Reading at Mac Arker Elementary (29.74457, -95.23976; OXY-20.9, LEL-0.0, CO-0.0, H25-0.0

PRSI Paradena Explosion VOC-0.0 SU2 070 Rouling at Galana Park High school. 29.74042, -95.23691! OXY-209, LEL-00 (0-0.0, H25-0.0, VOC-0.0 \$ 50, -0.0 04 Roading at water Forming + Port: 29.72145, -95.24442; OXY-20,9, LEL-0.0 0-0.0, A,5-0.0, VOC-0.0, SO, -00 as Arrive at site Begin POIRED documentation 1930 Complete first draft with OSC Enders and PRSI Incident Commander of unified Command. 15 demobizes and and returns equipment ART completes demob and end

Guadalupe Quiroz **REGION 12 - HOUSTON** 

Field Operations Division Office of Compliance and Enforcements ER WOYN leader

Region 12 Houston

quadalupe quiroze leg texas gov Texas Commission on Environmental Quality

5425 Polk Street, Suite H, Houston, TX 77023-1423 Office: 713/767-3500 713-767-3608 Fax: 713/767-3534 713-767-3799CFax http://tceq.state.tx.us

aquiroz@ lego state. 1x. us

printed on recycled paper

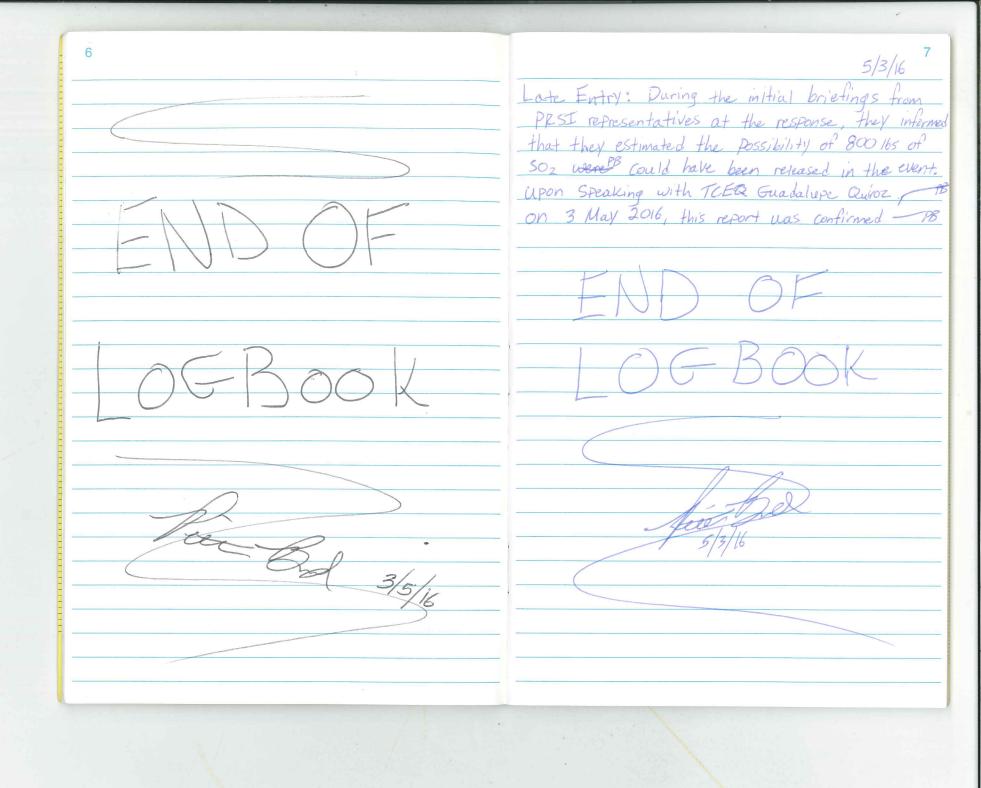


Pasadena Refining System, Inc.

Mark Berlinger Director of HSSE

> 111 Red Bluff Road Pasadena, Texas 77506 Tel: 713.920.3924 Cell: 281.832.0740

Email: mberlinger@pasadenarefining.com



### ATTACHMENT G

NRC REPORT NO. 1142043

Submit Action Report

Spill Summary Report

NATIONAL RESPONSE CENTER 1-800-424-8802

\*\*\*GOVERNMENT USE ONLY\*\*\*GOVERNMENT USE ONLY\*\*\*

Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 1142043

INCIDENT DESCRIPTION

\*\*\*\* THIS IS A POTENTIAL RELEASE \*\*\*\*

\*Report taken by: MST2 JOSHUA DIAZ at 13:58 on 05-MAR-16

Incident Type: FIXED

Incident Cause: EXPLOSION

Affected Area:

Incident occurred on 05-MAR-16 at 10:30 local incident time.

Affected Medium: AIR ATMOSPHERE

REPORTING PARTY

Name: DUTY OFFICER

Organization: NATIONAL RESPONSE CENTER

Address: 2703 MARTIN LUTHER KING JR AVE, SE

WASHINGTON, DC 20593

PRIMARY Phone: (800) 4248802

Type of Organization: FEDERAL GOVERNMENT

SUSPECTED RESPONSIBLE PARTY

Name: UNKNOWN

Organization: PASADENA REFINING SYSTEM, INC

Address: 111 RED BLUFF RD

PASADENA, TX 77506

Phone: (713) 4722461

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

111 RED BLUFF RD County: HARRIS

City: PASADENA State: TX Zip: 77506

POTENTIALLY RELEASED MATERIAL(S)

CHRIS Code: UNK Official Material Name: UNKNOWN MATERIAL

Also Known As:

Qty Released: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

/// THIS REPORT WAS GENERATED VIA MESSAGE TRAFFIC ///

THERE IS A REPORTED EXPLOSION AT A FACILITY, RESULTING IN THE CLOSURE OF THE HOUSTON SHIP CHANNEL. THERE WAS ONE INJURED PERSON WHO HAS BEEN TRANSPORTED TO THE HOSPITAL. NO RELEASE HAS BEEN REPORTED AT THIS TIME. NO CHEMICALS WERE DIRECTLY INVOLVED AND THERE IS NO CONCERN OF TOXIC VAPORS.

#### INCIDENT DETAILS

Package: NO Building ID:

Type of Fixed Object: REFINERY Power Generating Facility: UNKNOWN

Generating Capacity:

Type of Fuel:

NPDES:

NPDES Compliance: UNKNOWN

IMPACT

Fire Involved: UNKNOWN Fire Extinguished: UNKNOWN

INJURIES: YES 1 Hospitalized: 1 Empl/Crew: Passenger: FATALITIES: UNKNOWN Empl/Crew: Passenger: Occupant:

EVACUATIONS: UNKNOWN Who Evacuated: Radius/Area:

Damages: UNKNOWN

Closure Type Description of Closure Closure Closure Closure

Air:

Road: Major Artery: N

Waterway: Y HOUSTON SHIP CHANNEL

Track: N

Passengers Transferred: NO Environmental Impact: UNKNOWN Media Interest: HIGH Community Impact due to Material:

REMEDIAL ACTIONS

USCG IMT ARE EN ROUTE TO THE SCENE TO COORDINATE COMMUNICATIONS WITH THE COTP.

Release Secured: UNKNOWN

Release Rate:

Estimated Release Duration:

WEATHER

Weather: UNKNOWN, □F

ADDITIONAL AGENCIES NOTIFIED

Federal: USCG State/Local: FD

State/Local On Scene: FD

State Agency Number:

\_\_\_\_\_

NOTIFICATIONS BY NRC

CENTERS FOR DISEASE CONTROL (GRASP)

05-MAR-16 14:08 (770)4887100

DHS NOC (NOC)

05-MAR-16 14:08 (202)2828114

CGIS HOUSTON (SPECIAL AGENT CGIS)

05-MAR-16 14:08 (409)6827808

CHEM SAFETY AND HAZARD INVEST BOARD (MAIN OFFICE)

(202)

CHEM SAFETY AND HAZARD INVEST BOARD (WEEKEND)

(202) 6312440

CHEM SAFETY AND HAZARD INVEST BOARD (CSB AUTOMATIC NOTIFICATIONS)

05-MAR-16 14:08 (202)3780334

DHS TEXAS FUSION CENTER (INTELLIGENCE OFFICERS)

05-MAR-16 14:08 (202)3068204

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)

05-MAR-16 14:08 (202)3661863

EPA OEM (MAIN OFFICE)

05-MAR-16 14:11 (202)5643850 ABRAMS

EPA OEM (WEEKEND CONTACT)

05-MAR-16 14:12 (202)5643850 ABRAMS

U.S. EPA VI (MAIN OFFICE)

05-MAR-16 14:09 (866)3727745 BRESCIA

FBI STRATEGIC INFO OPERATIONS CNTR (MAIN OFFICE)

05-MAR-16 14:10 (202)3233300 NO VERBAL

USCG NATIONAL COMMAND CENTER (MAIN OFFICE)

05-MAR-16 14:08 (202)3722100

HOUSTON POLICE DEPARTMENT (CRIMINAL INTELLIGENCE DIVISION)

05-MAR-16 14:08 (713)3088700

HOUSTON REGIONAL INTEL SERVICE (FUSION CENTER)

05-MAR-16 14:08 (713)8844710

INFO ANALYSIS AND INFRA PROTECTION (MAIN OFFICE)

05-MAR-16 14:08

JFO-LA (COMMAND CENTER)

05-MAR-16 14:08 (225)3366513

NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)

05-MAR-16 14:08 (202)2829201

NATIONAL INFRASTRUCTURE COORD CTR (INFRASTRUCTURE PROTECTION)

05-MAR-16 14:08 (202)2829201

NOAA RPTS FOR TX (MAIN OFFICE)

05-MAR-16 14:08 (206)5264911

NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)

05-MAR-16 14:08

NATIONAL RESPONSE CENTER HQ (AUTOMATIC REPORTS)

05-MAR-16 14:08 (202)2671136

NRC COMMAND DUTY OFFICER (MAIN OFFICE)

(202) 2672100

NTSB PIPELINE (MAIN OFFICE)

05-MAR-16 14:08 (202)3146293

HOMELAND SEC COORDINATION CENTER (MAIN OFFICE)

05-MAR-16 14:08 (202)2828300

ORLANDO INTNL AIRPORT TSA/DHS (INCIDENT MANAGEMENT CENTER)

05-MAR-16 14:08 (407)3191748

OCCUPATIONAL SAFETY & HEALTH ADMIN (DALLAS OFFICE)

05-MAR-16 14:08 (801)9180995

PORT OF HOUSTON AUTH POLICE DEPT (POLICE DEPARTMENT)

05-MAR-16 14:08 (713)6703611

PORT OF HOUSTON AUTH POLICE DEPT (HSEES DIRECTOR)

05-MAR-16 14:08 (713)6702642

PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))

05-MAR-16 14:08 (202)3660568

PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY WEEKENDS) (202) 3661863

SECTOR HOUSTON-GALVESTON (COMMAND CENTER)

(281) 4644855

TCEQ (MAIN OFFICE)

05-MAR-16 14:08 (800)8328224

TCEQ (REGION 12)

05-MAR-16 14:08 (512)2392507

DEPT OF ENERGY STPR (STRATEGIC PETROLEUM RESERVE-EMERGENCY MGMT)

05-MAR-16 14:08 (504)7344113

TEXAS FUSION CENTER (COUNTER TERRORISM)

05-MAR-16 14:08 (866)7865972

TX GENERAL LAND OFFICE (MAIN OFFICE)

05-MAR-16 14:08 (281)4706597

TEXAS STATE OPERATIONS CENTER (COMMAND CENTER)

05-MAR-16 14:08 (512)4242208

USCG DISTRICT 8 (MAIN OFFICE)

05-MAR-16 14:08 (504)5896225

USCG DISTRICT 8 (PLANNING)

05-MAR-16 14:08 (504)6712080

#### ADDITIONAL INFORMATION

PASADENA FIRE DEPT IS THE ON-SCENE COMMANDER WITH THE HOUSTON HAZMAT IN SUPPORT AND CHANNEL INDUSTRIES MUTUAL AID GROUP RESPONDED TO SUPPORT THE FIREFIGHTING EFFORTS.

\*\*\* END INCIDENT REPORT # 1142043 \*\*\*
Report any problems by calling 1-800-424-8802
PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil

Close Window

# ATTACHMENT H FINAL TCEQ STEERs REPORT

# Confirm Final Report of Incident 228749 to Send to TCEQ Regulated Entity: RN100716661 Today's date is: 03/18/2016

Incident Tracking Number:		228749	228749			Incident Status:	<u> </u>	OPEN		
Submittal Type:		FINAL REPORT								
Name of Owner or Operator	r:		PASADENA REFINING SYSTEM INC			Regulated Entit	v	RN100716661		
			Number:							
Physical Location:		111 RED	111 RED BLUFF RD							
Event/Activity Type:	NS EVENT									
Date and Time Event Discov or Scheduled Activity Start:	03/05/201	03/05/2016 @ 10:27								
Event Duration:		8 hours, 33	3 minutes							
Process Unit or Area Comm										
Distillate Hydrotreater Unit										
Facility Common Name				Facility Ide	entification	Number (FIN)				
Distillate Hydrotreater Unit				REFFU002						
Emission Point Common Na	me:			Emission P	oint Numb	er:				
West Flare				FLRFNWE	ST					
List of Air Contaminant Co.	mpounds									
Description Est.		t. Quantity/ pacity	Units	Emission Limit		Units	Authorization			
Butane	70.	.70000	POUNDS	239.81000		LBS/HR	56389			
Ethylene (gaseous)	2.7	70000	POUNDS	239.81000		LBS/HR	56389	56389		
Propane	24.	.0000	POUNDS	239.81000		LBS/HR	56389			
Sulfur dioxide	10	6.20000	POUNDS	11.86000		LBS/HR	56389			
Nitrogen Oxides	14.	.40000	POUNDS	31.68000		LBS/HR	56389	9		
Carbon Monoxide	10-	4.30000	POUNDS	161.39000		LBS/HR	S/HR 56389			
Butene	12.	.0	POUNDS	239.81		LBS/HR 56389		9		
C5+ (not including benzene)	139	9.50	POUNDS	239.81		LBS/HR 56389		9		
Emission Point Common Na	me:			Emission P	oint Numb	er:				
Distillate Hydrotreater Unit				FUREF002						
List of Air Contaminant Co	mpounds									
Description	Est. Qu Opacity		Units	Emission Limit	Units	Authorization	Authorization			
Hydrogen Sulfide	1.10000		POUNDS	0.01000	LBS/HR	56389				
Sulfur dioxide	187.0000		POUNDS	0		No specific emissions authorizations for this facility				
Propane	215.100	000	POUNDS	5.71000	LBS/HR	56389				
Propylene (Propene)	2.10000		POUNDS	5.71000	5.71000 LBS/HR 56389					
Butane, N-	134.800	000	POUNDS	5.71000	0 LBS/HR 56389					
Butene	4.90000		POUNDS	5.71000	LBS/HR	.BS/HR 56389				
Pentane, N-	70.8000	0	POUNDS	5.71000	LBS/HR	56389				

Hexane	1849.0000	POUNDS	5.71000	LBS/HR	56389
Carbon Monoxide	1085.80	POUNDS	0		No specific emissions authorizations for this facility
Nitrogen Oxides	36.70	POUNDS	0		No specific emissions authorizations for this facility
Particulate Matter	711.0	POUNDS	0		No specific emissions authorizations for this facility
Benzene	0.8	POUNDS	5.71	LBS/HR	56389
Toluene	10.9	POUNDS	5.71	LBS/HR	56389
Ethylbenzene	6.2	POUNDS	5.71	LBS/HR	56389
Xylene	38.9	POUNDS	5.71	LBS/HR	56389
Ethylene (gaseous)	2.4	POUNDS	5.71	LBS/HR	56389
Pentenes	3.1	POUNDS	5.71	LBS/HR	56389

# Cause of Emission Event or Excess Opacity Event, or Reason for Scheduled Activity:

A pipe failure at the Distillate Hydrotreater Unit (DHT) resulted in release of diesel range hydrocarbons and hydrogen, with a resultant fire.

# Actions Taken, or Being Taken, to Minimize Emissions And/or Correct the Situation:

DHT and adjacent SZorb Units were safely shutdown and isolated. Emergency responders were able to contain and extinguish the fire.

### Basis Used to Determine Quantities and Any Additional Information Necessary to Evaluate the Event:

Emission calculations were based on best engineering estimates that included the feed rate to the DHT unit at the time of the incident and hydrocarbons that were contained in the process equipment and consumed in the fire. The emissions estimate also includes West Flare emissions during the period of the incident to account for any process flow that was diverted to the flare. The flare emissions were based on flow rate and composition analyzers for the West Flare.

Submission date and time:  $03/18/2016\ 01:18:10\ PM$  Submission STEERS Version: 6.00

Submission Confirmation Number: 129163
Submission Data Hash Code: 4CBEC8FEB240B445F6B6934E05F732CA1353DD2FA4AF7B922FE8AA9ED83FA7A5
STEERS AEME Incident Id: 135916

# ATTACHMENT I POLLUTION REPORT (POLREP)

# U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT PRSI Fire - Removal Polrep

Initial and Final Removal Polrep



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region VI

Subject: POLREP #1

**First and Final PRSI Fire** 

Pasadena, TX

To: Anthony Buck, TCEQ

> Ronnie Crossland, USEPA Reggie Cheatham, USEPA

From: Jhana Enders, FOSC

Date: 3/5/2016

3/5/2016 - 3/6/2016 **Reporting Period:** 

#### 1. Introduction

1.1 Background

Site Number: **Contract Number:** D.O. Number: **Action Memo Date:** 

Response Authority: CERCLA **Response Type:** Emergency

PRP Removal Assessment Response Lead: **Incident Category:** 

**NPL Status: Operable Unit:** Non NPL

**Mobilization Date:** 3/5/2016 **Start Date:** 3/5/2016

**Demob Date:** 3/6/2016 **Completion Date:** 

**CERCLIS ID: RCRIS ID:** 

TCEQ Notified ERNS No.: **State Notification:** 

FPN#: Reimbursable Account #:

# 1.1.1 Incident Category **CERCLA Response**

# 1.1.2 Site Description

Pasadena Refining System, Inc. (PRSI) refines and markets petroleum products, including petrochemical feedstock with a crude oil capacity of over 100,000 barrels per day.

#### 1.1.2.1 Location

Pasadena Refining System, Inc., 111 Red Bluff Road, Pasadena, TX 77506.

#### 1.1.2.2 Description of Threat

A compressor in the Hydrogen Desulfurization (HDS) unit tripped and when restarted, resulted in an

explosion and fire. The fire created a large black plume of smoke that traveled offsite. The smoke from the fire posed a potential health threat to nearby communities. One employee was injured and sent to Bayshore Hospital with burns on the back of the head, shoulder and hands. The employee was released from the hospital later the same day. There were no community evacuations or shelter in place. No waterways were affected.

#### 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

On 03/05/2015 PRSI was changing out hydrogen sources in the HDS Unit when a flash and percussion wave damaged nearby pipelines carrying diesel fuel. The hydrogen and diesel fuel caught fire at approximately 1015, resulting in an explosion and release of Sulfur Dioxide (SO2) to the atmosphere. The HDS Unit was shut down and depressurized following emergency procedures. Additional units adjacent to the HDS were also shut down. The burning diesel fuel caused a large black plume of smoke which traveled offsite. Due to an estimated SO2 Reportable Quantity (RQ) of 800 pounds the National Response Center (NRC) was notified (#1142043). The first "e-notify" was sent to agencies, nearby industries, and the community at 1058.

PRSI safety conducted air monitoring offsite, using a MX6 Monitor (H2S, SO2, O2, LEL). PRSI and Harris County Pollution Control conducted mobile air monitoring within the vicinity of the plant as well as offsite and reported no detections above background.

Channel Industries Mutual Aid (CIMA) responded at the request of the facility with multiple firefighting units. The Washburn Tunnel and Red Bluff Road were shut down by authorities to accommodate the staging of fire suppression equipment. The US Coast Guard (USCG) closed the Houston Ship Channel as a precautionary measure until teams could investigate the scene for possible chemical release to the air or impact on waterways.

A Unified Command (UC) was established with the city of Pasadena as the lead. Agencies onsite included; City of Pasadena, City of Houston Fire Department, Harris County Emergency Management/Pollution Control/Arson Investigation, Houston Emergency Management, Harris County Hazmat, USCG, TCEQ, CIMA.

The fire was extinguished at 1902 and the 'all clear' was given by the UC at 1921. Runoff water from the fire was contained and sent to a wastewater treatment plant.

# 2.1.2 Response Actions to Date

On 03/5/2016, the EPA Phone Duty Officer (PDO), Nicolas Brescia, dispatched OSC Enders and the EPA START contractor to assess site conditions, document site activities and provide technical assistance as needed. The EPA team arrived on scene and received a briefing from the Incident Commander(IC) Mark Berlinger, PRSI Environmental Health Safety Director. A meeting was held with members of the PRSI onsite incident command to obtain an accurate timeline of events and other information regarding the current situation.

The EPA team conducted air monitoring at 14 locations in the surrounding industrial and residential areas for oxygen (O2), lower explosive limit (LEL), carbon monoxide (CO), hydrogen sulfide (H2S), volatile organic compounds (VOC), and sulfur dioxide (SO2) with no detections above background.

EPA met with PRSI and TCEQ at the end of the day to go over the timeline of events and actions moving forward. TCEQ will continue oversight during the damage assessment and restoration.

# 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

# 2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Air Emissions		Estimated 800 pounds of SO2			

# 2.2 Planning Section

# 2.2.1 Anticipated Activities

None at this time.

#### 2.2.1.1 Planned Response Activities

No further action by EPA

#### **2.2.1.2 Next Steps**

TCEQ will continue oversight during the damage assessment and restoration

#### **2.2.2 Issues**

One PRSI employee was taken to a local hospital to be treated for burns from the initial explosion

### 2.3 Logistics Section

No information available at this time.

# 2.4 Finance Section

No information available at this time.

#### 2.5 Other Command Staff

No information available at this time.

### 3. Participating Entities

No information available at this time.

# 4. Personnel On Site

No information available at this time.

# 5. Definition of Terms

No information available at this time.

### 6. Additional sources of information

No information available at this time.

### 7. Situational Reference Materials

No information available at this time.

# ATTACHMENT J TDD NO. 1/WESTON-042-16-017

Page 1 Of 2

U.S. EPA, Region 6 1445 Ross Avenue, Suite 1200

Dallas, TX 75202-2733

Vendor: WESTON SOLUTIONS, INC.

TDD Title: PRSI Fire

Purpose: TDD INITIATION

Amendment #: Contract #: EP-W-06-042

TDD #: 1/WESTON-042-16-017

Verbal Date: 03/05/2016

Start Date: 03/05/2016

Completion Date: 06/30/2016 Effective Date: 03/05/2016

 $\textbf{Priority}: {}^{\texttt{HIGH}}$ Overtime Authorized: Yes Invoice Unit:

SSID: A6MV

Project/Site Name: PRSI Fire

Project Address: 111 Red Bluff Road

County: Harris City: Pasadena

State :  $\mathbb{T}^{\boldsymbol{X}}$ **Zip Code**: 77506 Work Area: Response / Removal

Work Area Code :  $\ensuremath{^{\text{RS}}}$ 

Activity: PRP Emergency Removal w/o Enforceable Instrument)

SFO:

Activity Code: PJ Operable Unit: Emergency Code:

Performance Based :  $^{\text{No}}$ 

Authorized TDD Ceiling :	Amount	LOE (Hours)
Previous Action(s):	\$0.00	0.00
This Action :	\$20,000.00	0.00
New Total :	\$20,000.00	0.00

#### Specific Elements:

Description of Work:

See Schedule

Region Specific:

CERCLIS:: Misc 2:

# Accounting and Appropriation Information:

Line Budget / FY Approp Budget Program Object Site Project Cost DCN Line-ID Funding Category	TDD Amount
1 15 T 6A00 303DC6 2505 06WQWQ00 156ARSC017-001 REMOVAL SUPPOR	T \$20,000.00

U.S. EPA, Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733

Vendor: WESTON SOLUTIONS, INC.

TDD #: 1/WESTON-042-16-017

Amendment #:

Contract #: EP-W-06-042

Project Officer :	Will LaBombard		Branch Mail Code:	
			Phone Number :	214-665-7199
-	(Signature)	(Date)	Fax Number :	
Contracting Officer Re	epresentative Jhana Enders		Branch Mail Code :	
			Phone Number :	214-665-2270
	(Signature)	(Date)	Fax Number :	
Contract Specialist:	Michael J. Pheeny		Branch Mail Code :	
			Phone Number :	214-665-2798
	(Signature)	(Date)	Fax Number :	
Contracting Officer :	Michael J. Pheeny		Branch Mail Code :	
Electronically	Signed by Michael J. Pheeny	03/28/2016	Phone Number :	214-665-2798
	(Signature)	(Date)	Fax Number :	
Other Agency Official			Branch Mail Code :	
			Phone Number :	
	(Signature)	(Date)	Fax Number :	

Description of Work:TDD Ceiling: \$20,000. Tier 1 Response to a reported release of SO2 and diesel oil in Pasadena, Tx. NRC#1142043.

Assess site conditions, provide air monitoring and/or other technical assistance as needed. Deliverables to include the following in excel spreadsheet format; Daily START costs to include personnel/date/#hours worked/brief description of activities/labor category/rate, air monitoring data to include date/time/GPS coordinates/detections/standards. Other deliverables to include draft PolReps, photo/logbook documentation, final AOC and other as specified by the OSC. Coordinate with OSC Enders at 214.789.9654. RP Lead site.

Page 1 Of 2

U.S. EPA, Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733 TDD #: 1/WESTON-042-16-017 Amendment #: 001 Contract #: EP-W-06-042

Vendor: WESTON SOLUTIONS, INC.

TDD Title: PRSI Fire

Purpose: EXTEND POP

Verbal Date: 03/05/2016

Start Date : 03/05/2016

Completion Date: 12/21/2016

Effective Date: 03/05/2016

 $\begin{array}{c} \textbf{Priority}: {}^{\texttt{HIGH}} \\ \textbf{Overtime Authorized}: {}^{\texttt{Yes}} \\ \textbf{Invoice Unit}: \end{array}$ 

SSID: A6MV Work Area: Response / Removal

Project/Site Name : PRSI Fire Work Area Code : RS

Project Address: 111 Red Bluff Road

Activity: PRP Emergency Removal w/o Enforceable Instrument)

 County : Harris
 Activity Code : PJ

 City : Pasadena
 Operable Unit :

 State : TX
 Emergency Code :

 Zip Code : 77506
 FPN :

 Performance Based : No

 Authorized TDD Ceiling :
 Amount
 LOE (Hours)

 Previous Action(s) :
 \$20,000.00
 0.00

 This Action :
 \$0.00
 0.00

 New Total :
 \$20,000.00
 0.00

#### Specific Elements:

**Description of Work:** 

See Schedule

Region Specific :

CERCLIS: : Misc 2 :

Acco	Accounting and Appropriation Information:							SFO:		
Line	Budget / FY	Approp	Budget	Program Flement	Object Class	Site Project	Cost	DCN Line-ID	Funding Category	TDD Amount

U.S. EPA, Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733

Vendor: WESTON SOLUTIONS, INC.

TDD #: 1/WESTON-042-16-017

Amendment #: 001
Contract #: EP-W-06-042

Project Officer :	Will LaBombard		Branch Mail Code:	
			Phone Number :	214-665-7199
	(Signature)	(Date)	Fax Number :	
Contracting Officer Rep	presentative Jhana Er	nders	Branch Mail Code :	
			Phone Number :	214-665-2270
	(Signature)	(Date)	Fax Number :	
Contract Specialist:	Michael J. Pheeny		Branch Mail Code :	
			Phone Number :	214-665-2798
	(Signature)	(Date)	Fax Number :	
Contracting Officer :	Michael J. Pheeny		Branch Mail Code :	
Electronically S	Signed by Michael J. Phee	o5/24/2016	Phone Number :	214-665-2798
	(Signature)	(Date)	Fax Number :	
Other Agency Official			Branch Mail Code :	
			Phone Number :	
	(Signature)	(Date)	Fax Number :	

Description of Work:

Amendment 001 - Extend the POP to 12/21/2016 so that work can continue. No change in SOW or funding.

Base ORIG - TDD Ceiling: \$20,000. Tier 1 Response to a reported release of SO2 and diesel oil in Pasadena, Tx. NRC#1142043. Assess site conditions, provide air monitoring and/or other technical assistance as needed. Deliverables to include the following in excel spreadsheet format; Daily START costs to include personnel/date/#hours worked/brief description of activities/labor category/rate, air monitoring data to include date/time/GPS coordinates/detections/standards. Other deliverables to include draft PolReps, photo/logbook documentation, final AOC and other as specified by the OSC. Coordinate with OSC Enders at 214.789.9654. RP Lead site.